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ABSTRACT

Community colleges, four-year colleges, and other training programs have developed special services for head injury survivors. The need for these services is explained using statistics from the National Head Injury Foundation, and head injury is defined. The person with head injury may experience impairment in such functions as memory, cognitive/perceptual communication, speed of thinking, communication, spatial reasoning, conceptualization, executive functions, psychosocial behavior, motor ability, sensory ability, and physical ability. Programs available include: (1) rehabilitation programs with cognitive training and vocational components, and (2) postsecondary education or job training programs. Educational and program planning for head-injured students should take into account the need of all such students for structure, flexibility, reduced demands, supervision, and intervention. Guidelines are offered on setting up campus programs, and suggestions are made to assist head-injured survivors in planning their educational programs. Also included is a list of individuals and organizations that can be contacted for advice on developing services to meet student needs. (JDD)

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THE HEAD INJURY SURVIVOR ON CAMPUS: ISSUES AND RESOURCES

OVERVIEW

Students who have survived head trauma represent the fastest growing group seeking special services on campuses today. There are two major reasons for this. First, well over half of the people incurring head injuries are between the ages of 15 to 28 years, the same age range seeking postsecondary educational and career training opportunities. Second, many people who are already working when they are injured must receive retraining or remedial job training on a campus to overcome the resulting disabilities and return to work. The numbers of students with head injuries seeking services will continue to grow as advancements in emergency and acute medical care, rehabilitation techniques, and technological advances all make survival more likely.

Brain injury is a very complex phenomenon. Research has shown that thinking and behavior may be altered as a result of virtually all forms of head injury, including those which seem minor at the time. Planning for persons who sustain such injuries is especially complicated by two major factors:

1) The interrelationship of variables such as pre-accident ability and status, severity of the injury and the resultant disability, family support systems, available community resources, and the individual's revised life goals. These variables are more important considerations in planning for the future than an evaluation of brain damage or the location of that damage.
2) Evaluation must be ongoing, since recovery from brain injury usually continues for many months, even years. In addition, improvements often come in rapid bursts which then may require major changes in an individual's educational program.

After the acute medical care and rehabilitation phases of the recovery process, a postsecondary educational or career training setting can often provide the most appropriate avenue for community reentry. Colleges are structured and organized communities with specialists who can provide coordinated services. Community colleges and other training institutions may be near the survivor's home and offer normal, age-appropriate options that may include a wide variety of opportunities and resources.

The disabilities caused by head injuries frequently seem to make regular programs inaccessible and inappropriate. An initial assessment may lead to the conclusion that most of the institution's existing programs are inappropriate or inadequate. However, several community colleges, four-year institutions, and other training programs have succeeded in serving head injury survivors. In one recent year, California community colleges served 2,400 such students. In light of the great need for services, the professionals in these successful programs have agreed to provide resources and assistance for others who wish to develop programs on their own campuses to serve survivors of head injuries.

The purpose of this HEATH Resource Paper is to offer encouragement and to identify the basic resources for campus administrators, persons who provide services to students with disabilities, faculty members, head injury survivors, and their families. The sections called **Programs That Work** and **Selected Resources** list people and/or organizations which can be contacted for advice on developing a system to meet the needs of **a single student** and/or setting up a program to serve a **number of students** on campus.

THE NEED FOR NEW SERVICES

The statistics from the National Head Injury Foundation are staggering:

- Each year in America over one million persons sustain head injuries.
- Of these, 140,000 die from the injuries.
- Of the 700,000 who are admitted to hospitals, 72 percent or 505,000 are diagnosed to have mild brain injury. Many of these persons will experience changes in cognitive abilities or behavior which will require rehabilitation and educational services if they are to continue productive lives.
- From 50,000 to 110,000 survivors receive injuries classified as moderate to severe; these require extensive and long-term rehabilitation and educational services for assistance to cope with permanent disability.
- The largest group of people who sustain head injuries are between 15 to 24 years, comprising almost twice as many males as females.
- The frequency is nearly as high for youth under age 15.
- Costs, over a lifetime, of caring for a person with severe brain trauma average $4.4 million to $9 million.
- Annual costs of medical and rehabilitative treatment for persons with head injury have been estimated to be over $4 billion, excluding the loss of income incurred by persons who sustain head injury and the family members who leave jobs to care for them.
- Approximately 200 people in 100,000 in any given community can expect to survive a head injury in a given year.

Rehabilitative and educational programs needed to serve head injury survivors are grossly inadequate. Until the establishment of the National Head Injury Foundation in 1980, no single existing federal, state, or private agency concerned itself exclusively with the unique problems faced by head injured survivors and their families. Existing colleges, training institutions, and

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medically-based rehabilitation facilities have found their resources stretched to the breaking point and/or inappropriately structured to meet the needs of the growing numbers of disabled people and their families who seek community-based resources that can assist them toward independent and productive lives. Community colleges and other institutions with strong support services have been the first postsecondary educational institutions to address the burgeoning demand, just as they have been in the forefront of needed changes in earlier times. **This paper seeks to disseminate information about strategies that work, resources available, and suggested guidelines for creating better systems of service.**

HEAD INJURY DEFINED

The following definition was developed by the California Consortium for the Study of Programs for the Brain Injured. It will serve to identify the relevant issues:

"Acquired Brain Injury (ABI) is an acquired impairment of medically verifiable brain functioning resulting in a loss or partial loss of one or more of the following: cognitive, communication, psychomotor, psychosocial and sensory/perceptual abilities. The preceding deficiencies are defined as:

- **cognitive**—loss or partial loss of memory function, attention, concentration, judgment and problem solving, mental flexibility, organizational thinking skills, spatial orientation, and information retention;
- **communication**—impairment of speech, language, and pragmatics (pragmatics is defined as the appropriate use of semantic and non-semantic rules governing communication);
- **psychosocial**—untoward social behavior or impaired psychodynamics that limit or impede interpersonal relationships, coping strategies, and goal directed behavior;
- **sensory/perceptual**—deficiencies in primary perceptual systems such as visual, auditory, and tactile;
- **psychomotor**—limitation in locomotion or motor functions and/or physiological dysfunction of a body part or system."

Brain injury can result from two types of trauma: 1) external events, such as closed head trauma or a missile penetrating the brain; or 2) internal events, such as cerebral vascular accidents, tumors, ingestion of toxic substances, hypoxia, or infections of the brain. (This paper will use interchangeably the terms brain injury, head injury, traumatic head injury, and acquired brain injury.)

The consequences of brain injury are many and complex. Understanding how brain **function** is different after injury has much greater implications for education than does knowing the cause or type of the injury. Since the brain directs actions to cope with life changes, injury to the brain has devastating effects, and unusual assistance is needed to adjust. Survivors may not be able to carry on lives as they had planned. Resistance to accepting assistance, so typical of adolescents and young adults, further complicates the planning process for many student-age survivors.

The Person with Head Injury

Persons with head injuries are most likely to seek an educational or training program after they leave hospitals or inpatient rehabilitation facilities. There is great variability in the effects of head injury on different individuals, and success in postsecondary settings may be very difficult depending on the residual impairments. Even those injuries described as minor can produce long-lasting social and educational problems. In addition, survivors leaving rehabilitation progams with the highest scores on outcomes scales can demonstrate problems that are not readily apparent and may be misunderstood by peers and professors. These individuals may appear normal and believe themselves fully recovered; yet, when they enter a postsecondary program, they may find that they are unprepared for its intellectual, physical, or social demands.

To repeat, there is great variation in the possible effects of a head injury on an individual, and most college students will exhibit some—not all—of them. However, most injuries result in some degree of impairment in the following functions:

- **Memory**—Memory deficits are probably the most common characteristic of students with brain injury. The primary problem is inability to store information for immediate recall. This causes trouble in acquiring new information. However, long-term memory or previously acquired knowledge is usually intact. The brain injured student usually has good recollection of the past, but poor understanding and awareness of the present and future. This results in memory gaps, confusion, and confabulation. Students must learn to use compensatory devices, such as schedules, check lists, and other assistance in retrieving facts and organizing information. This process is often hard to accept because the adaptations required are constant reminders that the person is impaired in skills that previously may have been automatic.
- **Cognitive/Perceptual Communication**—Distracted by extraneous stimuli, students may have difficulty focusing enough for learning to take place. Attention and concentration may be influenced by medications, nutrition patterns, and fatigue resulting from disturbed sleep.
- **Speed of Thinking**—Students with cognitive deficits from brain injury often take longer to process information which influences reaction time, speed of response, and quickness of data integration. However, accuracy of output may not be impaired if speed of input can be slowed adequately.
- **Communication**—Language functions (writing, reading, speaking, listening, as well as the pragmatics) may be impaired. Problems in pragmatics include interrupting, talking out of turn, dominating discussions, speaking too loudly or rudely, or standing too close to the listener. The student may have trouble comprehending written or spoken material especially under pressure such as during exams.
- **Spatial Reasoning**—Spatial reasoning refers to the ability to recognize shapes of objects, judge distances accurately, navigate, read a map, visualize images, comprehend mechanical functions, or recognize position in space. Deficits in any of these areas may cause the student difficulties on very practical levels such as crossing campus or navigating in the dormitory without getting lost. The effectiveness of instructional materials that use visual/spatial skills will also be diminished.
- **Conceptualization**—Deficits in conceptualization reduce ability to categorize, sequence, abstract, prioritize, and generalize information. The student may be very concrete and stimulus-bound.
- **Executive Functions**—Ability to engage in goal setting, planning, and working toward a desired outcome in a flexible manner is often impaired. Without these skills, return to independent life is impossible.

- **Psychosocial Behaviors**—Some of the common types of psychosocial behavioral disabilities which are critical to understand adequately include depression/withdrawal, mental flexibility, denial, frustration, tolerance/anger, irritability, restlessness, anxiety, lability, impulsivity, sexual dysfunction, social judgment, disinhibition, euphoria, apathy, fatigue, and decreased awareness of personal hygiene.

  Behavioral problems may have organic origins or can be natural reactions to a new and poorly understood disability. The social effects of disability in this realm can be devastating and are often most damaging to long-term reintegration into the community. It may be far more difficult to recover from these problems than to retrain cognitive skills. What makes the social behaviors even more complicated is that they can hardly be differentiated from symptoms of cognitive deficits.
- **Motor, Sensory, and Physical Abilities**—Brain injury can result in specific impairments primarily manifested in the physical or medical condition of the student after the injury. These can influence the cognitive/perceptual and psychosocial/behavioral skills as well. These disabilities are motor/movement impairments; seizures; impairments of the senses (vision, hearing, touch, taste, smell), or other physical impairments which may include bowel and bladder dysfunction, poor regulation of appetite and thirst, sexual response dysfunction, and respiratory complications.

The **ABI Handbook** (see **Selected Resources**) provides more detailed descriptions of these deficits, as well as some case studies which illustrate many of the problems and how campuses have dealt with them.

TYPES OF PROGRAMS AVAILABLE

Adult brain injury survivors reenter community life through programs which can be divided into two broad categories:

1) Rehabilitation programs with cognitive training and vocational components; and,
2) Postsecondary education or job training programs which provide support services for students who have disabilities resulting from head injury.

Rehabilitation Programs

Head injury rehabilitation programs have developed from the medical rehabilitation model which uses a team of doctors and therapists who deliver services to a person in a hospital rehabilitation unit or an outpatient clinic. These rehabilitation programs are appropriate for persons whose cognitive impairments prevent their return to the school or job setting. Such a program may be a step in the return to a job, to education, or to some other longer term rehabilitation program.

The National Head Injury Foundation (NHIF) publishes the **National Directory of Head Injury Rehabilitation Services.** This volume lists hundreds of programs which are grouped in twelve categories: Acute Rehabilitation, Subacute Rehabilitation, Transitional Living, Lifelong Living, Home Care, Day Treatment, Independent Living, Coma Treatment, Behavioral Disorders, Education, Respite/Recreation, and Employment. Each listing in the **NHIF Directory** includes the name, address, phone number, contact person, ages of people accepted for the program, program type, and program accreditations. The **Directory** is arranged by state, program type, and speciality services. It contains a supplemental section with information on driver education, evaluation, respirator dependent services, Spanish translation, substance abuse, and visual impairment. The appendices include a guide to selecting a head injury rehabilitation program, a widely used coma assessment, scales to measure levels of functioning, and a glossary of terms. Also included in the **Directory** is a list of state Head Injury Foundation (HIF) offices and affiliated support groups.

Using the **NHIF Directory** and information gained from other resources (see **Selected Resources**), survivors and their parents or significant others, with the assistance of health care professionals, can make decisions about the most appropriate rehabilitation and/or education program.

Postsecondary Education and Training Programs

Colleges, universities, and career training institutions have only recently begun to serve students who have survived a brain trauma, and thus the programs available are not as clearly defined as the rehabilitation programs.

Since the mid 1970s many campuses have established offices and staff to offer support services and coordinate structural changes necessary to make their campuses physically and programmatically accessible to qualified students with disabilities. Legislation such as the Education of the Handicapped Act and the Vocational Rehabilitation Act (especially regulations implementing Section 504), as well as activism among people with disabilities, was the impetus for these changes. To remove competitive disadvantage caused by disability is the purpose of such campus adaptations as providing readers for blind students, interpreters and notetakers for students with hearing impairments, or recordings for print handicapped students, as well as adapted classroom and laboratory equipment and adjustments in scheduling.

Thus, the first students with severe disabilities to succeed on campuses were those with mobility, hearing, or visual problems. During the late 70s and 80s colleges began accepting increasing numbers of students with learning disabilities and extending established support services to this group, in spite of concern about the academic ability of students with learning disabilities. As these postsecondary institutions opened their doors to students with cognitive impairments such as specific learning disabilities, they had to define their missions carefully to decide if they could meet the needs of this new group of students, while serving the purpose of the institution for the other students. Today many campuses serve students with learning disabilities who succeed in regular academic programs. In addition, some colleges serve community members with severe cognitive handicaps by offering selected non-credit courses or other programs which fit within the mission of the institution. These non-degree-granting programs are frequently offered by community colleges and may include training for para-professional jobs, independent living skills, and recreation or athletic activities.

Students who have had a brain injury now present a new challenge to colleges. As stated earlier, because of a typical survivor's age and the need for training in job skills or continued regular education after initial rehabilitation, the student may wish to enroll in a postsecondary institution. Many can take advantage of the services already present on a campus under the direction of a good Disability Service Program.

Colleges across the country which want to increase their services for head injured students have found essential assistance in the handbook developed by

the California Community Colleges System. **The ABI Handbook—Serving Students with Acquired Brain Injury in Higher Education,** (see **Selected Resources**), defines five program types found in the California Community College System which provide wide options for a great variety of students. Following are descriptions of these programs and one example of each as a contact for resources and assistance.

Limited Services Program

A limited services program can serve students who need only the services already provided on the campus such as student notetakers, adaptive physical education, test facilities for those who have writing difficulties, tutoring, and interpreters for the deaf. Such limited services may be all that are needed for the student to be able to participate in all coursework in regular classes. Other adaptations possible in this setting are reduced course load, extra time to take tests, use of recording equipment, and campus counseling services. Medical, rehabilitation, mental health, and other services available in the community could be added to the limited services a student receives on campus. **Sacramento City College, 3835 Freeport Blvd., Sacramento, CA 95822. (916) 449-7528, Jim Hinerman.**

Self-Contained Program, Off Campus

The self-contained college program, off-campus, aims to move the student toward a mainstream campus or career training and community re-entry program. This type is ideal for a student who is physically able to leave the rehabilitation in-patient program soon after injury and is expected to make continued progress, or for the person who needs intensive, but relatively short term, training to make the transition back to independent living. It allows for great flexibility in making an individualized plan for each student.

The self-contained off-campus program needs community support to assist the students by providing services such as mental health, social work, housing and job placement. The program should have these components: intensive speech/language services, intensive cognitive training, a self-contained setting where mobility and special needs can be effectively addressed, adaptive physical education, and skills training in community transition. When all these components are available, this type of program can accommodate students with severe problems of communication, spatial orientation, memory, psychosocial behaviors, and mobility. **San Francisco Community College Centers, 31 Hough St., San Francisco, CA 94103. (415) 239-3097, Dorene Cotter.**

Full Spectrum Program

The full spectrum of programs described above can appropriately be offered on one campus if there are resources to support a large group whose problems differ in severity. For such a program to succeed, the staff, as well as community and campus-based volunteers, should receive special training. The following components should be available: enabling services; tutoring; adapted computer technology; adaptive physical education; special classes; mainstream classes with support, vocational assessment preparation, and job placement; speech/language services; and counseling/guidance. **Glendale College, 1500 North Verdugo Road, Glendale, CA 91208. (818) 240-1000 X 397, Joy Cook.**

The Combination: Full Spectrum and Self-Contained, Off Campus Program

This type program is appropriate if an institution is able to make the commitment to the full spectrum of services in an on-campus program, but the staff also feels the need of a self-contained program that is housed off campus. It is simply a combination of the two as described above. **Cabrillo College, 6500 Soquel Drive, Aptos, CA 95003. (408) 479-6379, Sandra Eldridge.**

Learning Disabilities Program

A learning disabilities program usually has the following components: psychological services, including in-depth assessment and recommendations for behavior management; tutorial services by staff specially trained to work with students who have a variety of learning styles; specialized classes, such as remedial English, study skills, and independent living skills; guidance and counseling; and enabling services, such as notetakers and reader services. The staff will have established good rapport with the faculty, and all are acquainted with adaptive strategies for memory and organizational deficits. Before head injured students are enrolled, the staff should be offered in-service training to learn the differences between students with learning disabilities and those recovering from brain injury.

On the surface, problems encountered by the head injury survivor may seem like those common to students with learning disabilities. While similarities exist, there are important differences and educational strategies must be adapted to accommodate these differences.

Head injury survivors and learning disabled students have **similar problems** in attention, impulse control, organization of thoughts, location of objects or self in space, skill integration, problem solving, generalization of skills and seeing relationships or associations, abstract concepts, complex ideas, and social judgment. Teaching techniques which may benefit both groups of students include task analysis and synthesis, a multisensory approach to teaching and learning, tasks which favor one processing mode (such as visual or auditory) more than the other, strategies to compensate for cognitive deficits, or analysis and synthesis of the dynamics involved in social situations.

The **differences** between these two groups of students have profound significance for effective programming. Each head injury survivor is unique. Recovery is influenced by the extent of the damage and location of the injury, by the extent of memory problems, by pre-injury achievements and goals, and by the person's personality. The most characteristic quality of the head injury survivor is the variability in the rate and pattern of the recovery process. It is difficult to describe the effects a person is suffering because they change rapidly in the early months. Sometimes changes are too subtle to note, or professionals lack the tools to measure them. **Most important, the student remembers how he was before the injury and often does not recognize or understand how he has been changed by it.**

The student with learning disabilities who has been properly diagnosed and has received appropriate educational programming over the years can be expected to progress with a minimum of adaptation in program. The head injury survivor, on the other hand, changes so frequently as recovery occurs over time that ongoing program changes will be needed.

To summarize, compared to students with learning disabilities, **the student with acquired brain injury may:**

- be more impulsive, hyperactive, distractible, verbally intrusive, and/or socially inappropriate;

- have discrepancies in ability levels that are more extreme and harder to understand, such as, reading comprehension at a level four years lower than spelling ability, while math ability is unimpaired;
- learn some material rapidly, since they need only to be reacquainted with a process or concept which they knew pre-injury;
- have more severe problems generalizing and integrating skills or information, requiring individualized teaching, reteaching, and monitoring of skills that usually transfer as the content of lessons change;
- require on-going monitoring of tasks using independent thinking and judgment;
- be unable to process even the limited amounts of information presented through usual remedial strategies because comprehension may deteriorate as the amount and complexity of material increases;
- require a wider variety of strategies to compensate for impaired memory and problems with word retrieval, information processing, and communication;
- have more pronounced difficulty with organization of thoughts, cause-effect relationships, and problem solving;
- resist new techniques and learning strategies which seem too elementary (not accepting the changes that have been caused by the injury, but wanting to rely on pre-trauma personal and habitual strategies);
- retain the pre-trauma self-concept of a perfectly normal student and have difficulty realizing and accepting that abilities and behaviors have changed and need to be adjusted.

Given these similarities and differences between head injury survivors and students with learning disabilities, what are the **implications for educational and program planning?** There are several common needs for all head injured students:

Structure—Survivors of recent injuries often do not organize well. Frequently initiative, motivation, and judgment are absent or impaired. Returning to or entering school may provide a badly needed routine. However, more than the usual structure will be needed, as well as monitoring of it.

Flexibility—A great deal of flexibility is needed in scheduling the re-entry. Accepting the student back as soon as possible is important. Routines may need to be slowed down, placement decisions may need to change after periods of rapid recovery, faculty may need to try many strategies. Students returning to school may have missed courses in sequence, or they may need to return in mid-semester. This need for flexibility presents many problems to postsecondary institutions. It is advisable to confer and coordinate with the medical rehabilitation team to make this transition as smooth as possible.

Reduced Demands—Reducing demands on the head injured student may involve substituting a less demanding class, reducing class load requirements, altering response modes (such as oral vs. written responses), providing books and lectures on tape, or providing other support services. When reducing demands conflicts with the requirements for courses, and the conflicts can not be reconciled, the student may need to enter a specialized cognitive training program to seek extensive help in recovering academic skills. If it proves impossible to regain the ability to continue pre-trauma goals, it may be necessary to reduce demands by changing to a course of study requiring lower level cognitive skills. Another alternative is to leave the academic track to enter a job training program or an apprenticeship.

Supervision—The poor judgment and memory problems of the head injury survivor make supervision a necessary ingredient of the educational program. For the student, this supervision could take the form of a planning and monitoring system which requires the faculty or counselor and student to plan together, set goals, report and evaluate progress. Such monitoring would include establishing timelines, requiring promptness, and follow-up by the supervisor when goals are not met according to the plan.

Intervention—Head injured students are often not conspicuous before they begin to have serious trouble and they often misjudge their own problems. When campus staff is aware of a student who has experienced head trauma, they should not hesitate to inform the student and significant others, when appropriate, of the rights and resources available before serious problems accumulate. Again, remember that a result of the head injury may make the student unable to assess the need for help without direct intervention.

SETTING UP A CAMPUS PROGRAM

Because so many head injuries occur in the college age population, most campus administrators will consider what steps would be necessary to serve students who seek admission or reentry after rehabilitation. What are the questions to ask? What are the resources needed? What type program matches the mission of the school?

Based on an analysis of existing programs, discussion with leaders in the field, and review of current literature, the following steps are suggested for setting up a campus program:

1. *Establish a Campus Task Force on Students with Head Injury*

The campus committee on disability can appoint a subcommittee or Task Force on Head Injury, with the following persons included: a person who has survived head injury and has succeeded on a similar campus, or the parent of such a person; a representative of State or National Head Injury Foundation; a rehabilitation professional who can describe needs of head injury survivors; faculty who have taught disabled students; the person on campus in charge of disabled students program; dean of students and/or other appropriate representatives of the administration. This Task Force should consider campus resources, identify and enlist community resources, recommend policy for campus admission, list possible services, and evaluate the program offered.

2. *Review and Assess the Mission and Program of the School*

Students who have disabilities can often best be served in an institution which accepts a diverse student population having a range of ability levels. This is especially true if the institution offers courses with a range of difficulty and courses in which different learning styles and diverse interests are encouraged. However, if the institution has a competitive mode of operating, or a focus on rather specific skills that are required for success, and if this emphasis cannot be bypassed or compensated for, the student with cognitive problems may be better advised to 1) wait to reenter until recovery is sufficient for competitive learning or 2) choose a less demanding route to reach life goals. This judgment about the nature of the college mission should be made in collaboration with the campus Task Force on Head Injury described above.

3. *Identify and Describe Kinds of Services Needed by Brain Injured Students*

Several sources will be useful in describing needed services: NHIF, the state HIF; AHSSPPE; The Consortium for the Study of Programs for the Brain Injured; resources listed in this resource paper; and programs at similar campuses. The Task Force can become informed and develop a list of services they think suitable for the campus. **The ABI Handbook** provides a Program Checklist which can be used as a guide. The Task Force should define each service, know the costs of each service, and how to initiate it. The services needed for a program can often be obtained from community resources, medical, or rehabilitation facilities; but these links must be established and nurtured, prior to enrolling students with head injury. There must be coordination of the services needed by each student. This case management function can be provided by any one of the resource personnel.

4. *Identify Resources to Finance the Program*

Head injury survivors often have difficulty getting Social Security benefits. If the certifying doctors do not see the disabilities as a long standing problem which will interfere with employment, and if survivors are released from rehabilitation programs with inadequate forethought, it is difficult to claim benefits. The campus program director may have to substantiate an appeal to the Social Security Administration on behalf of a student who has been denied benefits.

Eligibility requirements for federally financed student aid are sometimes hard for brain injury survivors to meet. For example, in addition to financial and other eligibility criteria, students are required to be enrolled at least on a half-time basis to receive a Pell Grant, Guaranteed Student Loan, PLUS, or Supplemental Loans for Students, but half-time status is not required for "campus-based" aid such as Supplementary Education Opportunity Grants, College Work-Study, or Perkins Loans. Close cooperation between campus program director and campus financial aid officer could help identify resources.

5. *Set Policy for Program*

The Task Force can suggest policy on the scope of services it will advise the college to undertake. This policy is best presented in writing and submitted to appropriate campus administrators for approval, so that it becomes part of the admissions, recruitment, and student service policies of the institution.

6. *Set Up the Program*

Set up a program based on the policy established by the Task Force. Inform NHIF and state HIF of the program and its services. Integrate students in the new program into established joint activities for disabled and regular students. Utilize existing campus and community resources.

7. *Provide Training and Establish Resource Library*

Task Force and campus personnel who will teach or assist head injured students must be offered training and resources. This training must utilize audio and video tapes, off campus workshops, and seminars. Inservice training should meet the special needs of campus personnel. A resource library to serve campus personnel could be formed using the Resource Section of this paper as its core.

QUESTIONS TO GUIDE THE PLANNING PROCESS

The survivor of brain injury, significant others, and campus educators all need to consider a variety of questions as planning begins for education or training. A transition from rehabilitation to campus may be smoothed by joint planning between the rehabilitation professionals who know the student and the educators who will be assisting on campus. It is advised that all consider the questions raised below, make a plan, and establish a timeline. Again, a student who has had a head trauma will change and improve most rapidly during the first two years after injury. Recovery can be expected over a much longer span if the educators are knowledgeable in cognitive remediation methods and if the student is hard-working and well-motivated.

For Student Survivors of Head Injury

If you are considering entering college or returning to school after a head injury, you need a plan which reflects your goals as well as your need for special assistance. After recovering from head trauma, some students are able to continue their lives with little change. Others must face various kinds of disabling effects on the the way they learn, which makes going to school a different experience than before. If you are one of the head injury survivors who needs assistance in setting career goals and completing your courses, the following questions may help you make decisions:

1. What are my career goals? What training and experience do I need to accomplish them?
2. Have I recovered sufficiently from my head trauma to perform the difficult tasks in the educational or job training program I am considering?
3. How have my cognitive abilities changed as a result of the injury? What does this tell me about my educational goals?
4. Do I have the financial resources necessary to attend the school which I have chosen? How can I get social security benefits, student grants and/or student loans?
5. Do I have the motivation necessary to continue my educational program? Can I accept assistive devices and support services to make success in my academic program more likely?
6. Can I take care of the tasks necessary for daily living? Can I keep to a schedule and function in a student dormitory, which will be noisy, active, and confusing at times?
7. What changes will I need in my educational program to meet my special needs, such as reduced course load, extended time limits for courses, and a class schedule that allows me to take care of medical problems? In what areas do I need to develop compensatory strategies?
8. Is the college or training program I wish to attend able to accommodate my special needs?
9. Is my program goal realistic? Can I manage all the requirements for degree or certification?

For Significant Others

The term "significant others" (SO) usually refers to spouses, family members, or very close friends who take major responsibility for financial and other support of the brain injury survivor during and after rehabilitation. These persons provide housing, assist with activities of daily living, and share in decisions, as well as sharing the burden of grief for the loss of function caused by the injury. To the extent that these SO's are needed by the survivor to accomplish educational goals, they should be involved in the planning process. The following questions are suggested for SO's.

1. Are the career goals set by the head injury survivor consistent with the

resources available between us?
2. How much care and assistance can I offer and for how long?
3. Do I know of job opportunities available to a student who has completed the type of training or educational program under consideration?
4. Will the career goals, if achieved, produce enough income to support the survivor? If not, can we supplement the income, allowing the survivor to choose such goals?
5. Have we determined what federal, state, community, and family resources are available to assist with the education and living expenses?
6. How will attending college and/or taking a full-time or part-time job affect disability benefits which the survivor is receiving?
7. Am I planning with the survivor so that our goals are mutually acceptable?

For Professionals Assisting Head Injury Survivors

A team approach is the best strategy for educational planning and accommodation for the needs of the student after head injury. Such a planning team may be composed of the survivor, his/her SO's, community rehabilitation professional(s) or educational specialists, such as a neuropsychologist, and the campus director of services for students with disabilities. Other professionals can be called on to address specific problems. The following questions may offer assistance defining team responsibilities.

1. Are the head injury survivor, the SO's, and other members of the support team planning realistically? Are they considering how post-injury goals compare to pre-injury goals? Do they know the family resources, the post-injury abilities, and the various educational options available?
2. Have the student and the SO's been made aware of the prognosis? Are the predictable consequences clear in relation to long-term effects on education, training, and career?
3. What is each team member's most beneficial role in the educational and career planning for the survivor? (It may be different from the role played in the prior rehabilitation process.)
4. If I am new to providing support to head injury survivors, what resources do I need?
5. Have I begun exploring what Vocational Rehabilitation Services will provide in my state? Are benefits applicable to our students? Do I know about Social Security benefits and how coursework may be spread over time without threatening benefits? Do I understand the limits of the grant program?

PROGRAMS THAT WORK AND PROFESSIONALS WILLING TO SHARE STRATEGIES

Since serving survivors of head injury on campus is such a new field with many unknowns, those involved are eager to exchange information about successes and failures, strategies and resources. The people listed below and those identified earlier in this paper are willing to assist others with basic and on-going support. They all believe that it is a challenge and an opportunity to have a part in building the framework of postsecondary educational response to the growing requests of head injury survivors.

Richland Community College, 12800 Abrams Road, Dallas, TX 75243-2199, (214) 238-6180, Phyllis Haddock, Director Head Injury Program, Special Services Division.

Richland Community College offers TRI, Total Re-Integration. This is an educational program offering a block of classes which all students are advised to take. Although no single class is identified as "cognitive training," all classes use many strategies and the content has been developed to further retraining. Classes offered are: Basic Math, Oral Language (including Speech Therapy when needed), Organizational Skills and Time Management, Physical Fitness (individualized program under supervision), Reading, Grammar, Human Development Courses using the group process format and including instruction about interpersonal relationships, social and personal growth, and human sexuality. Plans are underway to add Vocational Preparation taught by a Vocational Counselor. This class will include basics such as how to find a job, how to dress appropriately, job related behaviors, and interview skills. A Job Coach will also be hired to offer supported employment services. Another new program in the planning stage is one which, in cooperation with the Horticulture Department, will offer training and practical on-the-job experience.

At present twenty-two students are enrolled in the Richland TRI Program. The class size is kept to ten or fewer with one teacher and up to four assistants depending on the number of students in the class and the severity of disabilities represented. Criteria for entry to the Head Injury Program are very flexible. The regular admission requirements are typical of community colleges and apply to this situation. In addition, the head injured student must not have behavior problems which put himself or others in danger, must be continent, or have an attendent who can help manage usual self-care tasks. The program is adequately structured and flexible enough to allow for coping with a wide range of disability.

Students are referred to the Richland program by the State Department of Vocational Rehabilitation, various hospitals, physicians and psychologists, and by word of mouth. Students manage their own living arrangements and use private or public transportation (including special local services for travelers with disability). The program is usually able to secure all evaluation materials from testing done during the student's rehabilitation. When these data are not available, campus services can handle any additional evaluation needed. The Office for Disabled Student Services regularly offers tutoring, notetakers, and taped materials, and all these are available to the Head Injury Program.

The Director developed the Richland Program by visiting other programs, attending conferences of the Texas Head Injury Foundation and Association on Handicapped Student Service Programs in Postsecondary Education, reading about the many aspects of head injury, and by using existing community resources. A tracking system to follow "graduates" is planned. Forty-nine students have been enrolled in the program since its inception in September 1986 and Richland Community College expects TRI to continue to grow. The Program Director welcomes interchange of ideas and information.

Essex Community College, 7201 Rossville Blvd., Baltimore, MD 21237, (301) 522-1641, Peggy Hayeslip, Educational Specialist in LD, Office of Special Services.

Essex Community College began to serve students with head injuries because they exhibited characteristics similar to learning

disabled students. Consequently, they were enrolled in the existing Learning Disabilities Program. Head injured students have been referred by the Trauma Center, Maryland Head Injury Foundation, Vocational Rehabilitation Agencies, the Veterans Administration and other veterans groups. Generally the head injured students in the Essex program are 1) young people with new injuries, who had not developed goals before the injury and who have prior academic problems; or 2) older persons who may have been employed for years, but whose head injuries render them unable to return to work without remedial work or further training.

By combining campus and community resources, an individualized plan is developed for each student. The following procedure is followed:

- An extensive intake interview gathers information about past history, the injury, present deficits, and the prognosis;
- Information is gathered from neuropsychological reports, medical information, and past school records;
- Appropriate services are selected, such as extended time for tests, reduced course load, developmental classes with additional credits allowed for such classes, counseling, adapted scheduling, taping, tutoring, and instruction in study skills;
- Head injured students are directed to an established support group made up of students with HI and adult community members;
- The College program is connected to community resources in Baltimore, such as the Easter Seal Center, which has a Head Injury Rehabilitation Grant; and the Maryland Rehabilitation Center, where students receive job training and coaching.

Hayeslip advises that the strength of Essex Community College work with students with head injury is directly linked to the availability of services and flexibility of the Campus Office of Special Services.

Northeastern University, 360 Huntington Avenue, 4 E11 Bldg., Boston, MA 02115, (617) 437-2675, Ruth Bork, Dean and Director, Office of Services for the Handicapped.

During the past eight years Northeastern has worked with over twenty students who have had head injuries. To illustrate the highly individualized application of services provided by the Office of Services for Students with Disabilities, Ruth Bork offers this case study: A young woman who had been accepted for the fall term at Northeastern was injured during her last semester in high school. Tutors assisted her in completing high school and she enrolled at Northeastern. She had severe problems with short-term memory, executive skills, and the pace of information processing. The following services and accommodations were provided for her:

- Reduced course load;
- Assistance with scheduling including an escort to help locate places and meet schedules;
- A notetaker/tutor who was majoring in same field was assigned to attend all classes with the head injured student to take notes, review material covered in class, tutor, and confer with professors to make sure major topics were clear; and
- Someone other than the notetaker administered exams, with extended time limits.

Ruth Bork worked closely with the notetaker/tutor to evaluate the success of service delivery. Supports were adjusted and gradually withdrawn as the student recovered functions or learned strategies to cope with her deficits. With a time extension of one year, this student finished her coursework and coop assignments and graduated.

It is Northeastern's experience that regular services must be individualized, changed over time and adjusted as recovery occurs. There are often behavioral problems that make adjustment to campus difficult. However, Northeastern has found that the support and services available on campus and in the community have made it possible to serve students with head injuries.

James Madison University, Office of Affirmative Action and Disability Services, Harrisonburg, VA 22807, (703) 568-6991, Carole C. Grove, Coordinator, Disability Services

James Madison University (JMU) serves head injured students through the Office of Disability Services. To increase awareness a campus-wide seminar, "Head Injury: The Road Back," was held at the campus center featuring speakers from the Virginia Head Injury Foundation and notable professionals from New Jersey and Maryland. Individualized plans for head injured students at JMU include notetaking, extended time on tests, preferential registration, special academic advising, supportive counseling, and linkage to outside agencies. JMU has established a working relationship with the Virginia Head Injury Foundation.

Central Piedmont Community College, P.O. Box 35009, Charlotte, NC 28235, (704) 342-6633) Jenny Tolson, Counselor to Students with Disabilities.

Central Piedmont places great emphasis on coordination of existing services. Ms. Tolson plans quarterly meetings for each student; which include the head injured student, the family, special services counselor, vocational evaluator, vocational rehabilitation counselor, psychologist, and/or other appropriate individuals. At each meeting this team reviews progress, plans for the next quarter's course selection, and discusses future goals. They find that this intense monitoring of progress and coordination of services allows the student and his family to make informed decisions about a vocational future.

William Rainey Harper College, 1200 W. Algonquin Road, Palatine, IL 60067, (312) 397-3000 x 2266, Midge Smith, Instructional Specialist, Disabled Student Services.

Harper College had its first students with head injuries in the early 1980s, although they were not identified as such. To serve this population more effectively, a staff member of the Disabled Student Services office with a background in learning disabilities was given release time to explore the available resources, learn more about the nature of head injury, and to recommend feasible adaptations. Important linkages have been made with the Illinois Head Injury Foundation, rehabilitation programs, hospitals, and community service agencies.

Currently, an instructional specialist is coordinating services for head injured students. These services include supervised study, individualized study, compensation techniques, computerized instruction, preparation sessions, counseling, student schedule modification, and student aides. Students receive individualized planning and maintain regular contact with the specialist until they can function on their own. In-service training has been conducted for faculty, staff, and students about the nature and impact of an acquired brain injury.

Harper College staff consider it important to:

- conduct a thorough intake interview, gather information to determine a person's "readiness" for college and support(s) needed;
- involve families or significant others;
- select a knowledgeable person to visit a class which the head injury survivor is taking (or will take) to assess the climate, teaching style, and course requirements; talk with the professor about what s/he might expect and what

strategies might work well for the student;
- provide a structured study place where a student can check in to receive help or simply find a quiet place to study.

San Francisco Community College Centers, Traumatic Head Injury Program, 31 Gough Street, San Francisco, CA 94103, (415) 239-3060, Sharon Fain, Enabler and Counselor and Carla Tracy-Weber, Acquired Brain Injury Specialist.

In 1983, classes for students with acquired brain injuries were started in the Disabled Students Services and Programs, a segment of the San Francisco Community College District. Shortly thereafter, the classes were reorganized into a comprehensive program designed specifically to meet the needs of these students. The program consists of courses in cognitive retraining, organizational and conceptualization skills, logical reasoning and problem-solving, psycho-social skills, and life skills.

An important component of the program is the Speakers' Bureau. Under the guidance of the staff, selected students under the guidance of the staff develop their skills as public speakers. Their presentations as survivors are brief, highly informative, personal, and educational. Each presentation is directed toward a specific group, such as high school driver training students, health care professionals, rehabilitation counselors, and educators.

The program staff comprises an educational psychologist; a counselor; specialists in speech/language; learning disabilities; and computer-assisted instruction, as well as paraprofessionals and volunteers. Internships are provided for university graduates in the areas of counseling and speech pathology. (A vocational rehabilitation counselor serving an internship in 1988–89 has been designated as the Department's Acquired Brain Injury Specialist for San Francisco County.)

There are 55 students currently receiving services. They represent a cross-section of society, including a former NASA space engineer, a bank executive, a college student, and a member of Hell's Angels. Students typically remain in the program for two years. Some advance to further education, while others pursue alternative vocational goals. The staff are proud of the students' accomplishments and excited to be part of a program which is meeting such dramatic needs.

SELECTED RESOURCES

Organizations

National Head Injury Foundation (NHIF) is an organization of families, consumers, professionals, and other advocates. The goals are to make the public aware of the high incidence of head injury and to provide programs and services to meet the needs of head injury survivors. **NHIF is the most comprehensive source of basic information for any family or group to begin coping with the challenge of recovery. Contact NHIF and its state and local affiliates for resources.** NHIF, 333 Turnpike Road., Southborough, MA 01772, (508) 485-9950. For survivors and family members NHIF offers a Family Helpline, 1-800-444-NHIF.

The Consortium for the Study of Programs for the Brain Injured is composed of a multidisciplinary group of knowledgeable community college professionals, consultants and representatives of the California Community College Chancellor's Office. The purpose of the Consortium is to develop and describe educational experiences and adaptation which will help make it possible for both youth and adults to return to productive lives. The group has published the **ABI Handbook** (below); and they are writing curricula for use in high schools, and postsecondary and graduate institutions. This consortium is part of the California Community Colleges system, but welcomes calls from other states. Contact Joy Cook, Consortium for the Study of Programs for the Brain Injured, 1500 North Verdugo Road, Glendale Community College, Glendale, CA 91208, (818) 240-1000 x397.

Association on Handicapped Student Services Programs in Postsecondary Education (AHSSPPE) is an organization committed to promoting full participation in college life of individuals with disabilities. The Association was established to provide the means to strengthen the professionalism, expertise, and competency of individuals who are interested and involved in services for students with disabilities by developing networks; collecting and disseminating information; training, developing, and enhancing the role of director of services for disabled students; and promoting equal rights and opportunities for students and graduates with disabilities. AHSSPPE, P.O. Box 21192, Columbus, OH 43221, (614) 488-4972 (Voice/TDD).

Family Survival Project is an organization concerned with the problems that arise when an adult acquires a chronic, traumatic, permanent, or progressive brain disorder. The Project provides counseling, respite care, self-help support groups, and education for families and advocates. Although this is a San Francisco based group, they have publications and training materials which are available nationally. Family Survival Project, 425 Bush Street, Suite 500, San Francisco, CA 94108, (415) 434-3388.

Periodicals

Brain Injury. A journal published quarterly by Taylor and Francis Ltd., 4 John Street, London WC1N 2ET. Order from Taylor and Francis Ltd., 242 Cherry Street, Philadelphia, PA 19106-1906. 1988 subscription prices: $112 for institutions, $55 for individuals.

CNR Review. A quarterly publication of the Center for Neuropsychological Rehabilitation, 8925 N. Meridian St., Suite 100, Indianapolis, IN 46260, (317) 843-0120. Free.

Cognitive Rehabilitation, A Publication for the Therapist, Family and Patient. NeuroScience Publishers, 6555 Carrollton Ave., Indianapolis, IN 46220, (317) 257-9672. Published bimonthly for $30 per year, $35 per year for past issues.

Headlines. News from the New Medico Head Injury System, 14 Central Avenue, Lynn MA 01901, (800) 343-1238. Free.

The Journal of Head Trauma Rehabilitation. Published quarterly by Aspen Publishers, Inc., 7201 McKinney Circle, Frederick, MD 21701, (800) 638-8437. $60 per year.

Moving Ahead, A Publication of the Academy of Rehabilitation Medicine. Head Injury Task Force, P.O. Box 203, Accord, MA 02018. For information call Kathleen Fralish, Editor, (618) 529-3060. Subscription fee $10 per year.

NHIF Newsletter. NHIF, 333 Turnpike Road, Southborough, MA 01772. Free with membership in NHIF, (508) 485-9950. Single copy free.

Rehabilitation Psychology. Special issue on Traumatic Head Injury, Vol. 31, No. 4, Winter 1986, Springer Publishing Co., 536 Broadway, New York, NY 10012, (212) 431-4370. $12 plus $2 shipping, single copy.

Books

Adamovich, B., Henderson, J., Auerbach, S. **Cognitive Rehabilitation of Closed Head Injured Patients, A Dynamic Approach.** 1985. Boston: A College Hill Publication, Little Brown and Co., 200 West Street, Waltham, MA 02254-9931, (804) 527-0415 (in MA), (800) 343-9204 (outside MA). $26 plus $1.50 shipping.

Begali, V. **Head Injury in Children and Adolescents: A Resource and Review for School and Allied Professionals.** 1987. Brandon, VT: Clinical Psychology Publishing Co., (802) 247-6871. $24 plus $4 shipping.

Holmes, C. **The Head Injured College Student.** 1988. Charles C. Thomas Publishers, 2600 South First Street, Springfield, IL 62794-9265, (217) 789-8980. $27.25 plus $3 shipping.

Levin, H., Benton, A., Grossman, R. **Neurobehavioral Consequences of Closed Head Injury.** 1982. New York: Oxford University Press, 1600 Pollitt Drive, Fair Lawn, NJ 07410, (800) 451-7556. $35.

Levin, H., Grafman, J., Eisenberg, H., eds. **Neurobehavioral Recovery from Head Injury.** 1987. New York: Oxford University Press, 1600 Pollitt Drive, Fair Lawn, NJ 07410, (800) 451-7556. $37.95.

Rosen, C., Gerring, J. **Head Trauma: Educational Reintegration.** 1986. Boston: College Hill Press, 200 West Street, Waltham, MA 02254-9931, (800) 527-0415 (in MA), (800) 343-9204 (outside MA). $18.50 plus $1.50 shipping.

Rosenthal, M., Griffith, E., Bond, M., Miller, J. **Rehabilitation of the Head Injured Adult.** 1983 edition out of print, but available in libraries. Second edition expected by September 1989. F.A. Davis Co., 1915 Arch Street, Philadelphia, PA 19103, (215) 568-2279. Call or write publisher for price.

Ylvisaker, M., ed. **Head Injury Rehabilitation: Children and Adolescents.** 1985. Boston: College Hill Press, 200 West Street, Waltham, MA 02254-9931, (800) 527-0415 (in MA) (800) 343-9204 (outside MA). $37.50 plus $1.50 shipping.

Ylvisaker, M., Gobble, E., eds. **Community Re-entry for Head Injured Adults.** 1987. Boston: Little Brown and Co., 200 West Street, Waltham, MA 02254-9931, (800) 527-0415 (in MA) (800) 343-9204 (outside MA). $37.50 plus.$1.50 shipping.

Monographs and Handbooks

The ABI Handbook: Serving Students with Acquired Brain Injury in Higher Education. 1987. The Consortium for the Study of Programs for the Brain Injured in California Community Colleges. Out of print, however NHIF (333 Turnpike Road, Southborough, MA 01722) has a limited number of copies for sale at $56.50. It is anticipated that an expanded edition of the ABI Handbook will be published in 1990.

An Educator's Manual: What Educators Need to Know About Students with Traumatic Brain Injury. 1988. NHIF, 333 Turnpike Road., Southborough, MA 01772. Shrink-wrap $15; Library Edition $25.

Catalogue of Educational Material, second edition, 1988. NHIF, 333 Turnpike Road, Southborough, MA 01772. Free.

Community Colleges and Students with Disabilities: A Directory of Services and Programs. 1988. AACJC/HEATH. Available from AACJC Publications, 80 South Early Street, Alexandria, VA 22304, (703) 823-6966. $5.00 plus $2.50 for shipping.

Community Re-entry, Tailored Information Packet. 1988. NHIF, 333 Turnpike Road, Southborough, MA 01772. $2.

DeBoskey, D., Dunse, C. **Families Without Funding: A Home Based Cognitive Rehabilitation Program.** 1988. Order from Psychology Department, Tampa General Rehabilitation Center, Tampa General Hospital, P.O. Box 1289, Tampa, FL 33601, (813) 251-7705. $10.

DeBoskey, D., Morin, K. **A "How to Handle" Manual for Families of the Brain Injured.** 1985. Order from Psychology Department, Tampa General Rehabilitation Center, Tampa General Hospital. P.O. Box 1289, Tampa, FL 33601, (813) 251-7705. $8.

DeBoskey, D., Oleson, T., Dunse, C., Morin, K. **Hiring the Head Injured: What to Expect.** 1986. Order from Psychology Department, Tampa General Rehabilitation Center, Tampa General Hospital, P.O. Box 1289, Tampa, FL 33606, (813) 251-7705. $8.

Dunse, C., Burton, J., Lowe, L., DeBoskey, D., Cook, C., McHenry, D. **Teaching the Head Injured: What to Expect.** 1987. Order from Psychology Department, The Tampa General Rehabilitation Center, Tampa General Hospital, P.O. Box 1289, Tampa, FL 33606, (813) 251-7705. $8.

Family Survival Handbook: A Guide to the Financial, Legal and Social Problems of Brain-Damaged Adults. 1985. Published by the Family Survival Project, 425 Bush Street, Suite 500, San Francisco, CA 94108, (415) 434-3388. One copy free, 1-25 copies—$1.50 each, more than 25 copies—$1.00 each.

Getting Our Heads Together, A Helpful Handbook for Families of Head Injured Patients. Revised 1989. Thoms Rehabilitation Hospital, P.O. Drawer 15025, Asheville, NC 28813, (704) 274-2400 X285. $3.50 per copy in English or in Spanish plus $1 shipping.

Head Injury: Hope Through Research, U.S. Department of Health and Human Services. NINDS, NIH Publication No. 84-2478, August 1984, NIH, Bethesda, MD 20205, (301) 496-5751. Free.

National Directory of Head Injury Rehabilitation Services, 1989 Edition. NHIF, 333 Turnpike Road, Southborough, MA 02772, (617) 485-9950. $21.95 members, $32.95 nonmembers.

Traumatic Brain Injury: Information Packet. 1989. American Occupational Therapy Association, Inc., Products Division, 1383 Piccard Drive, Suite 300, Rockville, MD 20850, (301) 948-9626. $12.

Working Approaches to Remediation of Cognitive Deficits in Brain Damaged Persons. Six Rehabilitation Monographs, 1978–1983 inclusive. Publication Office, NYU Medical Center, Health Care Center, Room 1430, 530 1st Ave., New York, NY 10016. $9 each.

Articles

Carter, R., Savage, R. Education and Traumatically Brain Injured: Rights, Protections and Responsibilities. **Cognitive Rehabilitation,** 3(5):14–17, 1985.

France, G. What it Means to be Brain Damaged. **California Association of Postsecondary Educators of the Disabled Journal,** 3(1):30–36, 1986.

Hall, D., DePompei, R. Implications for the Head Injured Reentering Higher Education. **Cognitive Rehabilitation, 4(3):6–8, 1986.**

Jones, M., White, G., Ulicny, G., Matthews, R. A Survey of Services by Independent Living Centers to People with Cognitive Disabilities. **Rehabilitation Counseling Bulletin,** Vol. 31, 244–248, 1988.

Savage, R. Educational Issues for the Head Injured Adolescent and Young Adult. **The Journal of Head Trauma Rehabilitation,** 2(1):1–10, 1987.

Savage, R., Carter, R. Re-Entry: The Head Injured Student Returns to School. **Cognitive Rehabilitation,** 2(6):28–33, 1984.

Sink, C., Tracy, L. Educati.g the Head Injured: A Continuum of Programs and Services. **Cognitive Rehabilitation,** 6(1):34–37, 1988.

Vogenthaler, D. Rehabilitation After Closed Head Injury: A Primer. **Journal of Rehabilitation,** 53(4):15–21, 1987.

Audio Tapes

Bork, R. **Working with Your Head Injured Students.** National AHSSPPE Conference, 1988. Tape #88-F30 available from Convention Recorders, 5401 Linda Vista Road, Suite C, San Diego, CA 92110, (619) 298-4646. $9.

Bork, R., Hayeslip, P., Thompson, T. **Working with Your Head Injured Students.** National AHSSPPE Conference, 1987. Tape #87-26 available from Convention Recorders, 5401 Linda Vista Road, Suite C, San Diego, CA 92110, (619) 298-4646. $8.

Cook, J., Harrington, Knight, N. **Serving Students with Acquired Brain Injuries in Higher Education.** National AHSSPPE Conference, 1986. Tape #86-39 available from Convention Recorders, 5401 Linda Vista Road, Suite C, San Diego, CA 92110, (619) 298-4646. $7.

Cook, J., Knight, N. **Assessing Students with Acquired Brain Injuries in Higher Education.** National AHSSPPE Conference, 1987. Tape #87-46, available from Convention Recorders, 5401 Linda Vista Road, Suite C, San Diego, CA 92110, (619) 298-4646. $8.

Educational Strategies: Secondary and Post Secondary Issues. Worshop, Ronald Savage, Moderator. Tape #7 from NHIF, 333 Turnpike Road, Southborough, NA 01772, (617) 485-9950. $11 plus $2 shipping.

ILC Services for the Consumer with Disability Due to Head Injury. National Conference on Independent Living, 1987. Tape #14, from VAE, 2831 15th Street, NW, Washington, DC 20009.

LaMar, C., Morris, J. **Serving Students with ABI: A Model of Success.** National AHSSPPE Conference, 1988. Tape #88-T20 available from Convention Recorders, 5401 Linda Vista Road, Suite C, San Diego, CA 92110, (619) 298-4646. $9.
Fall 1988, Martha Ross Ozer.

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